

almost ochraceous. Suborbital patch small, a mere vague streak. White of nape barely reaching withers, well defined, more or less surrounded by black. Distal foot of tail black. Skull 120 mm. from occipital crest to gnathion.

*Hab.* Yunnan. Type from Yen-yuen-sien.

*Type.* Adult female. B.M. no. 21.10.15.1. Collected by the Rev. W. N. Ferguson.

### 3. *P. l. rivalis*, subsp. n.

General colour pale, the ends of the hairs buffy or buffy whitish. Suborbital patch large, prominently white, extending practically up to the eye. Nape-patch irregular, whitish, not surrounded by black, and not extending to the withers. End of tail (about 8 inches in the Chung-king specimen) above black.

*Hab.* Yang-tze from Chung-king to Ichang; type from Ichang.

*Type.* Adult female. B.M. no. 2.6.10.16. Presented by F. W. Styan, Esq.

It is probable that these large western *Pagumas* should be specifically separated from the smaller ones of Eastern and Southern China, but owing to the absence of good skulls I prefer to leave this question open for the present, and treat them all as subspecies of *P. larvata*.

I am not in a position to check Prof. Matschie's distinction\* of the Canton form as *P. reevesi*, but I may note that Reeves's specimen, the type of the latter name, is still in the British Museum, No. 81 a.

## LXII.—On Three new Australian Rats.

By OLDFIELD THOMAS.

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ARISING out of the recent gift to the British Museum by Prof. Wood Jones of some South-Australian Muridæ, I have had occasion to look at several of our Australian rats, and now find the three following forms to need description:—

### *Leporillus jonesi*, sp. n.

Near *L. apicalis*, but larger and with shorter ears.

Size, as gauged by skull and foot, decidedly larger than in

\* Filechner Exped., Mamm. p. 183 (1907).

*apicalis*. Fur rather thin and poor, not so thick and woolly as in *apicalis*, hairs of back about 17 mm. in length. General colour above dull brown (not far from "Saccardo's umber"), the withers tending more towards buffy. Under surface slaty grey broadly washed with drabby whitish, the sides of the belly more strongly drabby. Ears shorter than in *apicalis*, dark brown. Hands with the metatarsals dark brown, the digits lighter. Feet with the ankles, outer side of the metatarsals (inner in made-up skin), and proximal part of the digits brown, the inner portion of the metatarsals, and the tips of the digits white. Tail well haired but not tufted, brown above, dull whitish below, throughout its length. Not whitened at tip, as is also the case with *apicalis*, the original description notwithstanding.

Skull larger and stouter than in *apicalis*. Muzzle broad and heavy. Interorbital region broad, with comparatively sharp-angled edges. Zygomatic plate more projected forwards. Palatal foramina shorter, not reaching the level of  $m^1$ . Bullæ rather large—these organs not present in the available specimens of *apicalis*.

Incisors rather slender, not thicker than in *apicalis*, but meeting each other at a wider angle, owing to the greater breadth of the muzzle. Molars larger than in *apicalis*, but apparently of similar structure—much worn down in the type.

Dimensions of the type (measured on the skin):—

Head and body 195 mm.; tail 178 (not quite perfect); hind foot 48; ear (dry) 24.

Skull: greatest length 48; condylo-incisive length 46; zygomatic breadth 23.5; nasals  $18 \times 6$ ; interorbital breadth 5.7; breadth of brain-case 18.5; zygomatic plate 6; palatilar length 13.6; palatal foramina  $8.8 \times 3.8$ ; bulla 7.8; upper molar series 9.3.

*Hab.* Franklin's Island, Nuyts Archipelago, S. Australia.

*Type.* Old female. B.M. no. 21. 7. 3. 2. Collected 23rd November, 1920, and presented by Professor F. Wood Jones. An immature specimen also examined.

This fine rat forms a very interesting discovery, as it represents a second species of the rare genus *Leporillus*, hitherto only known by the two examples of *L. apicalis* in the British Museum, the latter species being in all probability killed out on the mainland, and I have great pleasure in connecting with it the name of its captor and donor, Prof. Wood Jones, to whom also we owe the modern specimen of *Rattus greyi* recently referred to in a previous paper.

Although Gould had in his collection two specimens of

*L. apicalis*, both of which we now have, he seems only to have done his describing from one of them (B.M. no. 53. 10. 22. 14)—the worst of the two, young, and with an imperfect tail. Probably from memory, and certainly wrongly, he stated that the species had a white-tipped tail, but his overlooked second specimen—adult, with nearly perfect skull and quite perfect tail (B.M. no. 53. 10. 22. 14)—has the latter organ uniformly blackish or brownish above and dull white below, and there is no indication of the white tail-tip found in so many Australasian Muridæ.

When first making the genus *Leporillus*, I assigned "*Hapalotis murinus*" to it as a second species, but have since come to the conclusion that that animal should be referred to *Pseudomys*, in which genus it is probably synonymous with *Ps. australis*.

#### *The Long-haired Rat of Central Australia.*

In his 'List of Mammals in the British Museum' (1843) Gray cited two rats from the Liverpool Plains, New South Wales, under the name of *Pseudomys greyi*—a name, however, which is doubly invalid, being a *nomen nudum* and there having been already a *Mus* (= *Rattus*) *greyi* in existence.

These specimens I formerly assigned to Gould's *Mus longipilis* (= *villosissimus*, Waite), a species stated to have been collected on the "Expedition to the Victoria River." As may be gathered from the Diary of the Expedition\*, the Victoria River was the same as the Barcoo, or Cooper's Creek, which runs into Lake-Eyre, Central Australia. It is therefore in very much the same region as that in which Mr. Waite's specimens were obtained, and is in the same faunal area as Alexandria Station, Northern Territory, where our large series of *villosissimus* was captured by Mr. Stalker †.

Compared with these latter, the Liverpool Plains examples, in spite of their considerable geographical distance, prove to be so similar that I should consider them as being of the same species, but would propose subspecific distinction for them:—

#### *Rattus villosissimus profusus*, subsp. n.

Size rather less than in average *villosissimus*. Fur excessively long, even longer than in *villosissimus*, and much thicker and softer, quite different from the comparatively

\* J. Geog. Soc. xxii. p. 228 *et seq.* (1852).

† P. Z. S. 1906, p. 537.

harsh coat of that animal; the ordinary hairs over 22 mm. in length, and the longer piles attaining over 50 mm. General colour browner and more strongly buffy than in the comparatively greyish *villosissimus*; hairs of under surface slaty at base, broadly washed terminally with yellowish white.

Tail more thickly hairy, the scales almost hidden by the hairs.

Skull as in *villosissimus*.

Dimensions of the type:—

Head and body (skin) 185 mm.; tail —; hind foot 33.

Skull: tip of nasals to back of interparietal 38·4; nasals 15; interorbital breadth 4·8; breadth across parietal ridges 13; palatal foramina 8·4; upper molar series 7·5.

*Hab.* Liverpool Plains, New South Wales.

*Type.* Adult male. B.M. no. 41.1262. Gould Collection. Three specimens originally, but one given away in exchange in 1858.

*R. villosissimus* is a native of the hot central region of Australia, while this much thicker-coated form represents (or used to represent) the species in the colder highlands of New South Wales.

It is to be noted, however, that the Victoria River Expedition actually passed through the Liverpool Plains on the way to that River, and I have therefore thought it wise to consult the authorities of the Sydney Museum as to the characters of Gould's type. In answer, Mr. Troughton has been good enough to give me such particulars about that animal that there can be no doubt that it really was the Central Australian and not the Liverpool Plains form which Gould described and Waite renamed.

In size of skull *R. villosissimus* is one of the most variable species known to me, for in the fine series obtained at Alexandria examples, all fully adult, are to be found ranging from 36 to 44 mm. in total length—a variation only equalled in *R. norvegicus*. The bullæ also vary greatly—from 7·5 to 9·2 mm. in length,—but, on the whole, it is an animal with comparatively large bullæ. It is unfortunate that the bullæ have not been preserved in the specimens of *profusus*, but, being a native of a less desert area, it would probably have had smaller bullæ.

#### *Pseudomys australis oralis*, sp. n.

Closely allied to true *australis*, but rather larger, with longer softer hair. Colour of the same dark grey above, lower surface washed with yellowish white, without the

brown tone usually found in *australis*. Ears short, as in *australis*, not as in *auritus*.

Skull longer than in *australis*, the interorbital region longer and narrower, and more sharply square-edged. Palatal foramina proportionally shorter, not or scarcely penetrating between the molars, while in *australis* they reach to the level of the middle of  $m^1$ . Teeth averaging larger, though there is some variation in this respect.

Dimensions of the type (measured on skin):—

Head and body (no doubt stretched) 165 mm.; tail 139; hind foot (wet) 32; ear (wet) 20.

Skull: tip of nasals to back of interparietal 34; condylo-incisive length 31.5; zygomatic breadth 17.7; nasals 14; interorbital breadth 3.6; breadth of brain-case 16; palatal foramina 7.5; upper molar series 6.7.

*Hab.* Coast region of New South Wales. A specimen in Liverpool Museum from the Hastings River (Gould Coll.).

*Type.* Young adult. B.M. no. 47. 1. 20. 2. Purchased of Pamplin.

The rats variously termed *Pseudomys*, *Mus*, or *Hapalotis australis*, *murinus*, and *lineolatus* I believe to be all one species, and they certainly all come from one region—namely, that of the Darling Downs and Liverpool Plains, on the western side of the great dividing range. The present form, on the other hand, as shown by a specimen (no. 409) in the Liverpool Museum, occurs, or, at least, used to occur, on the coast to the east of the range, that individual having been collected on the Hastings River. The type, in the British Museum, is quite like the Liverpool specimen in the peculiar lengthening of the middle part of the skull and the comparatively short palatal foramina, the two specimens apparently representing a definable geographical race.

### LXIII.—*New Hesperomys and Galea from Bolivia.*

By OLDFIELD THOMAS.

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THE British Museum owes to the generosity of the Marquis de Wavrin a further small collection of mammals obtained during his S.-American expedition—this time from the Parapiti region of Eastern Bolivia, south of Santa Cruz de la Sierra. With the exception of the mammals obtained by